

Amendments to the Claims

The listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A fuel gauge adapted for use with a fuel supply and an electronic equipment powered by a fuel cell, said fuel gauge comprises:

means for establishing a remaining fuel level by measuring a property between a first location movable within the fuel supply and a second location on the fuel cell or on the electronic equipment, wherein the property is readable by an electrical circuit and is related to the amount of fuel remaining in the fuel supply; and

means for accounting for the effects on the property caused by at least one material disposed between the ~~first~~ first and second locations, wherein the at least one material includes at least one of a dielectric constant, an electrical property, a magnetic property, or an electro-magnetic property.

2. (Original) The fuel gauge of claim 1, wherein the fuel gauge is functional at any orientation of the fuel supply.

3. (Currently Amended) The fuel gauge of claim 1, wherein the first location comprises a first node and the second location comprises a second node, and wherein said property is an electrical capacitance between the two nodes and wherein [[a]] the first node is located at a position that moves as fuel is removed from the fuel supply.

4. (Currently Amended) The fuel gauge of claim 3, wherein [[a]] the second node is located on the fuel cell.

5. (Currently Amended) The fuel gauge of claim 3, wherein [[a]] the second node is located on the electronic equipment.

6. (Original) The fuel gauge of claim 3, wherein the first node is located on or in a liner containing the fuel and the liner is positioned within the fuel supply.

7. (Currently Amended) The fuel gauge of claim 1, wherein the first location comprises a first node and the second location comprises a second node, and wherein said property is a magnetic force between the two poles and wherein [[a]] the first pole is located at a position that moves as fuel is removed from the fuel supply.

8. (Currently Amended) The fuel gauge of claim 7, wherein [[a]] the second pole is located on the fuel cell.

9. (Currently Amended) The fuel gauge of claim 7, wherein [[a]] the second pole is located on the electronic equipment.

10. (Original) The fuel gauge of claim 7, wherein the first pole is located on or in a liner containing the fuel and the liner is positioned within the fuel supply.

11. (Currently Amended) The fuel gauge of claim 7, wherein further comprising a Hall gauge connected to the fuel gauge produces to produce a voltage from the magnetic force and the voltage is readable by the electrical circuit.

Claims 12 - 27 (Canceled).

28. (Previously Presented) The fuel gauge of claim 1, wherein the electrical circuit is located on the fuel cell.

29. (Previously Presented) The fuel gauge of claim 1, wherein the electrical circuit is located in or on the electronic equipment.

30. (Original) The fuel gauge of claim 1, wherein the fuel supply is a fuel cartridge.

31. (Original) The fuel gauge of claim 1, wherein the fuel supply is selected from a group consisting of disposable cartridges, refillable cartridges, reusable cartridges, cartridges that reside inside the electronic device, cartridges that are outside of the electronic device, fuel tanks, fuel refilling tanks, and fuel containers.

32. (Currently Amended) The fuel gauge of claim 1, wherein said first property is an oscillating magnetic field generated by an inductive sensor.

33. (Original) The fuel gauge of claim 32, wherein said oscillating magnetic field changes when an electrical conductor enters the field, and wherein the changes in the oscillating magnetic field correlates to the volume of remaining fuel.

34. (Previously presented) The fuel gauge of claim 33, wherein the inductive sensor is positioned at the second location on the fuel cell or the electronic equipment and the electrical conductor is located at the first location within the fuel supply that moves as fuel is removed from the fuel supply.

35. (Currently Amended) The fuel gauge of claim 32, wherein further comprising a Hall gauge connected to the fuel gauge produces to produce a voltage from the oscillating magnetic field and the voltage is readable by the electrical circuit.

36. (Previously Presented) A fuel gauge adapted for use with a fuel supply and an electronic equipment powered by a fuel cell, said fuel gauge comprises:

a first sensor associated with the fuel supply and spaced a distance apart from a second sensor associated with the fuel cell or the electronic equipment, wherein the distance varies with the fuel level and indicates the remaining fuel in the fuel supply, and wherein the first and second sensors have a property readable by an electrical circuit; and

a controller operatively connected to at least one of the first and second sensors, wherein the controller is configured to account for effects on the property caused by at least one material disposed between the sensors, wherein the at least one material includes at least one of a dielectric constant, an electrical property, a magnetic property, or an electro-magnetic property.

37. (Original) The fuel gauge of claim 36, wherein a magnetic field is formed between the sensors.

38. (Original) The fuel gauge of claim 36, wherein a capacitance is formed between the sensors.

39. (Original) The fuel gauge of claim 36, wherein the first sensor is positioned adjacent to a fuel liner within the supply.

40. (Original) The fuel gauge of claim 39, wherein the first sensor is positioned on the fuel liner.

41. (Currently Amended) The fuel gauge of claim 36, wherein the first sensor is positioned proximate a spring pressuring a fuel liner within the cartridge [[12]].

42. (Original) The fuel gauge of claim 36, wherein the first sensor is positioned on the spring.

43. (Previously Presented) The fuel gauge of claim 36, wherein the second sensor is positioned on the fuel cell or in or on the electronic equipment.

44. (Original) The fuel gauge of claim 41, wherein the spring comprises a metal spring.

45. (Original) The fuel gauge of claim 41, wherein the spring comprises a foam.

46. (Previously presented) The fuel gauge of claim 36, wherein the first sensor is positioned on or in the fuel supply.

47. (Previously Presented) The fuel gauge of claim 36, wherein the electrical circuit is positioned on the fuel cell or in or on the electronic equipment.

Claims 48-52 (canceled).

53. (Previously presented) The fuel gauge of claim 36, wherein the fuel gauge is functional at any orientation of the fuel supply.
54. (Previously presented) The fuel gauge of claim 36, wherein the fuel supply is a fuel cartridge.
55. (Previously presented) The fuel gauge of claim 36, wherein the fuel supply is selected from a group consisting of disposable cartridges, refillable cartridges, reusable cartridges, cartridges that reside inside the electronic device, cartridges that are outside of the electronic device, fuel tanks, fuel refilling tanks, and fuel containers.
56. (Currently Amended) The fuel gauge of claim 36, wherein said ~~first~~ property is an oscillating magnetic field generated by an inductive sensor.
57. (Previously presented) The fuel gauge of claim 56, wherein said oscillating magnetic field changes when an electrical conductor enters the field, and wherein the changes in the oscillating magnetic field correlates to the volume of remaining fuel.
58. (Currently Amended) The fuel gauge of claim 57, wherein the inductive sensor is ~~positioned at the second location~~ sensor located on the fuel cell or the electronic equipment and the electrical conductor is ~~located at the first location~~ sensor located within the fuel supply that moves as fuel is removed from the fuel supply.
59. (Currently Amended) The fuel gauge of claim 56, ~~wherein further comprising~~ a Hall gauge connected to the fuel gauge ~~produces to produce~~ a voltage from the oscillating magnetic field and the voltage is readable by the electrical circuit.
60. (Canceled)